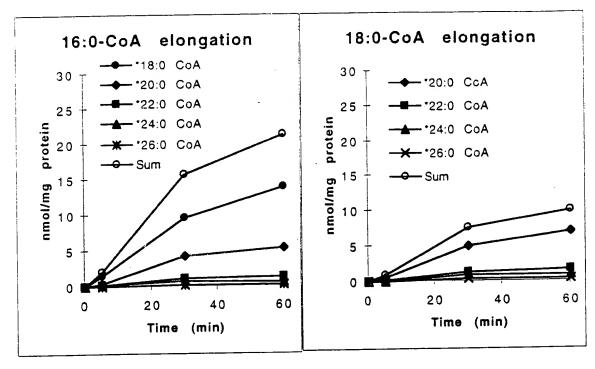
Figure / FAE1 w/ respect to time



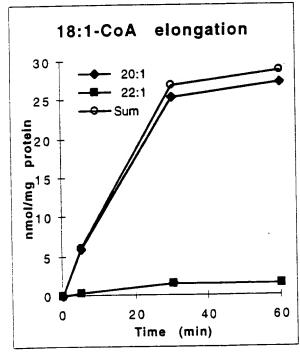
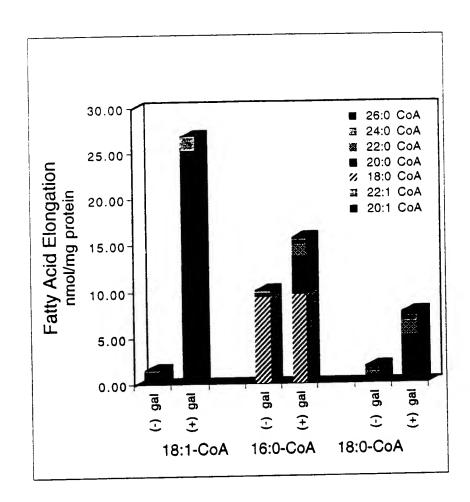


Figure 2



EL1 1560	bases				aaaaamm\ m\
ATGGATCGAG	AGAGATTAAC	GGCGGAGATG	GCGTTTCGAG	ATTCATCATC	GGCCGTTATA
AGAATTCGAA	GACGTTTGCC	GGATTTATTA	ACGTCCGTTA	AGCTCAAATA	CGTGAAGCTT
GGACTTCACA	ACTCTTGCAA	CGTGACCACC	ATTCTCTTCT	TCTTAATTAT	TCTTCCTTTA
ACCGGAACCG	TGCTGGTTCA	GCTAACCGGT	CTAACGTTCG	ATACGTTCTC	TGAGCTTTGG
TCTAACCAGG	CGGTTCAACT	CGACACGGCG	ACGAGACTTA	CCTGCTTGGT	TTTCCTCTCC
TTCGTTTTGA	CCCTCTACGT	GGCTAACCGG	TCTAAACCGG	TTTACCTAGT	GGATTTCTCC
TGCTACAAAC	CGGAAGACGA	GCGTAAAATA	TCAGTAGATT	CGTTCTTGAC	GATGACTGAG
GAAAATGGAT	CATTCACCGA	TGACACGGTT	CAGTTCCAGC	AAAGAATCTC	GAACCGGGCC
GGTTTGGGAG	ACGAGACGTA	TCTGCCACGT	GGCATAACTT	CAACGCCCCC	GAAGCTAAAT
ATGTCAGAGG	CACGTGCCGA	AGCTGAAGCC	GTTATGTTTG	GAGCCTTAGA	TTCCCTCTTC
GAGAAAACCG	GAATTAAACC	GGCCGAAGTC	GGAATCTTGA	TAGTAAACTG	CAGCTTATTC
AATCCGACGC	CGTCTCTATC	AGCGATGATC	GTGAACCATT	ACAAGATGAG	AGAAGACATC
AAAAGTTACA	ACCTCGGAGG	AATGGGTTGC	TCCGCCGGAT	TAATCTCAAT	CGATCTCGCT
AACAATCTCC	TCAAAGCAAA	CCCTAATTCT	TACGCTGTCG	TGGTAAGCAC	GGAAAACATA
ACCCTAAACT	GGTACTTCGG	AAATGACCGG	TCAATGCTCC	TCTGCAACTG	CATCTTCCGA
ATGGGCGGAG	CTGCGATTCT	CCTCTCTAAC	CGCCGTCAAG	ACCGGAAGAA	GTCAAAGTAC
TCGCTGGTCA	ACGTCGTTCG	AACACATAAA	GGATCAGACG	ACAAGAACTA	CAATTGCGTG
TACCAGAAGG	AAGACGAGAG	AGGAACAATC	GGTGTCTCTT	TAGCTAGAGA	GCTCATGTCT
GTCGCCGGAG	ACGCTCTGAA	AACAAACATC	ACGACTTTAG	GACCGATGGT	TCTTCCATTG
TCAGAGCAGT	TGATGTTCTT	GATTTCCTTG	GTCAAAAGGA	AGATGTTCAA	GTTAAAAGTT
AAACCGTATA	TTCCGGATTT	CAAGCTAGCT	TTCGAGCATT	TCTGTATTCA	CGCAGGAGGT
AGAGCGGTTC	TAGACGAAGT	GCAGAAGAAT	CTTGATCTCA		CATGGAACCT
TCTAGAATGA	CTTTGCACAG	ATTTGGTAAC	ACTTCGAGTA	GCTCGCTTTG	GTATGAGATG
GCTTATACCG	AAGCTAAGGG	TCGGGTTAAA	GCTGGTGACC	GACTTTGGCA	GATTGCGTTT
GGATCGGGTT	TCAAGTGTAA	TAGTGCGGTT	TGGAAAGCGT	TACGACCGGT	TTCGACGGAG
GAGATGACCG	GTAATGCTTG	GGCTGGTTCG	ATTGATCAAT	ATCCGGTTAA	AGTTGTGCAA

EL1 FIGURE 3 EL1 sequence
Molecular Weight 58379.00 Daltons
520 Amino Acids
62 Strongly Basic(+) Amino Acids (K,R)
52 Strongly Acidic(-) Amino Acids (D,E)
187 Hydrophobic Amino Acids (A,I,L,F,W,V)
144 Polar Amino Acids (N,C,Q,S,T,Y)
8.784 Isolectric Point
10.804 Charge at PH 7.0

MDRERLTAEM AFRDSSSAVI RIRRRLPDLL TSVKLKYVKL GLHNSCNVTT ILFFLIILPL TGTVLVQLTG LTFDTFSELW SNQAVQLDTA TRLTCLVFLS FVLTLYVANR SKPVYLVDFS CYKPEDERKI SVDSFLTMTE ENGSFTDDTV QFQQRISNRA GLGDETYLPR GITSTPPKLN MSEARAEAEA VMFGALDSLF EKTGIKPAEV GILIVNCSLF NPTPSLSAMI VNHYKMREDI KSYNLGGMGC SAGLISIDLA NNLLKANPNS YAVVVSTENI TLNWYFGNDR SMLLCNCIFR MGGAAILLSN RRQDRKKSKY SLVNVVRTHK GSDDKNYNCV YQKEDERGTI GVSLARELMS VAGDALKTNI TTLGPMVLPL SEQLMFLISL VKRKMFKLKV KPYIPDFKLA FEHFCIHAGG RAVLDEVQKN LDLKDWHMEP SRMTLHRFGN TSSSSLWYEM AYTEAKGRVK AGDRLWQIAF GSGFKCNSAV WKALRPVSTE EMTGNAWAGS IDQYPVKVVQ

FIGURE 4

EL2 1479 bases	
ATGGATTACC CCATGAAGAA GGTAAAAATC TTTTTCAACT ACCTCATGGC GCATCGCTTC	
AAGCTCTGCT TCTTACCATT AATGGTTGCT ATAGCCGTGG AGGCGTCTCG TCTTTCCACA 120	
CANGATOTOC AAAACTTTTA COTOTACTTA CAAAACAACC ACACATOTOT AACCATGTTC	
TTCCTTTACC TCGCTCTCGG GTCGACTCTT TACCTCATGA CCCGGCCCAA ACCCGTTTAT 240	1
CTCGTTGACT TTAGCTGCTA CCTCCCACCG TCGCATCTCA AAGCCAGCAC CCAGAGGATC	
ATGCAACACG TAAGGCTTGT ACGAGAAGCA GGCGCGTGGA AGCAAGAGTC CGATTACTTG 360	İ
ATGGACTTCT GCGAGAAGAT TCTAGAACGT TCCGGTCTAG GCCAAGAGAC GTACGTACCC	
GAAGGTCTTC AAACTTTGCC ACTACAACAG AATTTGGCTG TATCACGTAT AGAGACGGAG 480	1
GAAGTTATTA TTGGTGCGGT CGATAATCTG TTTCGCAACA CGGGAATAAG CCCTAGTGAT	
ATAGGTATAT TGGTGGTGAA TTCAAGCACT TTTAATCCAA CACCTTCGCT ATCAAGTATC 600	į
TTAGTGAATA AGTTTAAACT TAGGGATAAT ATAAAGAGCT TGAATCTTGG TGGGATGGGG	
TGTAGCGCTG GAGTCATCGC TATCGATGCG GCTAAGAGCT TGTTACAAGT TCATAGAAAC 720)
ACTTATGCTC TTGTGGTGAG CACGGAGAAC ATCACTCAAA ACTTGTACAT GGGTAACAAC	
AAATCAATGT TGGTTACAAA CTGTTTGTTC CGTATAGGTG GGGCCGCGAT TTTGCTTTCT 840)
AACCGGTCTA TAGATCGTAA ACGCGCAAAA TACGAGCTTG TTCACACCGT GCGGGTCCAT	
ACCGGAGCAG ATGACCGATC CTATGAATGT GCAACTCAAG AAGAGGATGA AGATGGCATA 960)
GTTGGGGTTT CCTTGTCAAA GAATCTACCA ATGGTAGCTG CAAGAACCCT AAAGATCAAT	
ATCGCAACTT TGGGTCCGCT TGTTCTTCCC ATAAGCGAGA AGTTTCACTT CTTTGTGAGG 1080)
TTCGTTAAAA AGAAGTTTCT CAACCCCAAG CTAAAGCATT ACATTCCGGA TTTCAAGCTC	
GCATTCGAGC ATTTCTGTAT CCATGCGGGT GGTAGAGCGC TAATTGATGA GATGGAGAAG 1200)
AATCTTCATC TAACTCCACT AGACGTTGAG GCTTCAAGAA TGACATTACA CAGGTTTGGT	_
AATACCTCTT CGAGCTCCAT TTGGTACGAG TTGGCTTACA CAGAAGCCAA AGGAAGGATG 1320	J
ACGAAAGGAG ATAGGATTTG GCAGATTGCG TTGGGGTCAG GTTTTAAGTG TAATAGTTCA	^
GTTTGGGTGG CTCTTCGTAA CGTCAAGCCT TCTACTAATA ATCCTTGGGA ACAGTGTCTA 1440	J
CACAAATATC CAGTTGAGAT CGATATAGAT TTAAAAGAG	

EL2 FIGURE 5 EL2 protein sequence
Molecular Weight 55799.30 Daltons
493 Amino Acids
55 Strongly Basic(+) Amino Acids (K,R)
46 Strongly Acidic(-) Amino Acids (D,E)
181 Hydrophobic Amino Acids (A,I,L,F,W,V)
134 Polar Amino Acids (N,C,Q,S,T,Y)
8.756 Isolectric Point
10.995 Charge at PH 7.0

MDYPMKKVKI FFNYLMAHRF KLCFLPLMVA IAVEASRLST QDLQNFYLYL QNNHTSLTMF FLYLALGSTL YLMTRPKPVY LVDFSCYLPP SHLKASTQRI MQHVRLVREA GAWKQESDYL MDFCEKILER SGLGQETYVP EGLQTLPLQQ NLAVSRIETE EVIIGAVDNL FRNTGISPSD IGILVVNSST FNPTPSLSSI LVNKFKLRDN IKSLNLGGMG CSAGVIAIDA AKSLLQVHRN TYALVVSTEN ITQNLYMGNN KSMLVTNCLF RIGGAAILLS NRSIDRKRAK YELVHTVRVH TGADDRSYEC ATQEEDEDGI VGVSLSKNLP MVAARTLKIN IATLGPLVLP ISEKFHFFVR FVKKKFLNPK LKHYIPDFKL AFEHFCIHAG GRALIDEMEK NLHLTPLDVE ASRMTLHRFG NTSSSSIWYE LAYTEAKGRM TKGDRIWQIA LGSGFKCNSS VWVALRNVKP STNNPWEQCL HKYPVEIDID

FIGURE 6

EL3 1512 bases						
CTACGTCAGG GTAGAACAAA	GAGTAAACAC	TTAAGCAAAA	CAATTTGTCC	TACTCTTAGG	TTATCTCCAA	
TGAAGAACTT AAAGATGGTT	TTCTTCAAGA	TCCTCTTTAT	CTCTTTAATG	GCAGGATTAG	CCATGAAAGG	
ATCTAAGATC AACGTAGAAG	ATCTCCAAAA	GTTCTCCCTC	CACCATACAC	AGAACAACCT	CCAAACCATA	
AGCCTTCTAT TGTTTCTTGT	CGTTTTTGTG	TGGATCCTCT	ACATGTTAAC	CCGACCTAAA	CCCGTTTACC	
TTGTTGATTT CTCCTGCTAC	CTTCCACCGT	CGCATCTCAA	GGTCAGTATC	CAAACCCTAA	TGGGACACGC	
AAGACGTGCA AGAGAAGCAG	GCATGTGTTG	GAAGAACAAA	GAGAGCGACC	ATTTAGTTGA	CTTCCAGGAG	
AAGATTCTTG AACGTTCCGG	TCTTGGTCAA	GAAACCTACA	TCCCCGAGGG	TCTTCAGTGC	TTCCCACTTC	
AGCAAGGCAT GGGTGCTTCA	CGTAAAGAGA	CGGAAGAAGT	AATCTTCGGA	GCTCTTGACA	ATCTTTTTCG	
CAACACCGGT GTAAAACCTG	ATGATATCGG	TATATTGGTG	GTGAATTCTA	GCACGTTTAA	TCCAACTCCA	
TCACTCGCCT CCATGATTGT	GAACAAGTAC	AAACTCAGAG	ACAACATCAA	GAGTTTGAAT	CTTGGAGGGA	
TGGGTTGCAG TGCCGGAGTT	ATAGCTGTTG	ATGTCGCTAA	GGGATTACTA	CAAGTTCATA	GGAACACTTA	
TGCTATTGTA GTAAGCACAG	AGAACATCAC	TCAGAACTTA	TACTTGGGGA	AAAACAAATC	AATGCTAGTC	
ACAAACTGTT TGTTCCGCGT	TGGTGGTGCT	GCGGTTCTGC	TTTCAAACAG	ATCTAGAGAC	CGTAACCGCG	
CCAAATACGA GCTTGTTCAC	ACCGTACGGA	TCCATACCGG	ATCAGATGAT	AGGTCGTTCG	AATGTGCGAC	
ACAAGAAGAG GATGAAGATG	GTATAATTGG	AGTTACCTTG	ACAAAGAATC	TACCTATGGT	GGCTGCAAGG	
ACTCTTAAGA TAAATATCGC	AACTTTGGGT	CCTCTTGTAC	TTCCATTAAA	AGAGAAGCTA	GCCTTCTTTA	
TTACTTTTGT CAAGAAGAAG	TATTTCAAGC	CAGAGTTAAG	GAATTATACA	CCAGATTTCA	AGCTTGCCTT	
TGAGCATTTC TGTATCCACG	CTGGTGGAAG	AGCTCTAATA	GATGAGCTGG	AGAAGAACCT	TAAGCTTTCT	
CCGTTACACG TAGAGGCGTC	AAGAATGACA	CTACACAGGT	TTGGTAACAC	TTCTTCTAGC	TCAATCTGGT	
ACGAGTTAGC TTATACAGAA	GCTAAAGGAA	GGATGAAGGA	AGGAGATAGG	ATTTGGCAGA	TTGCTTTGGG	
GTCAGGTTTT AAGTGTAACA	GTTCAGTATG	GGTGGCTCTG	CGAGACGTTA	AGCCTTCAGC	TAACAGTCCA	
TGGGAAGACT GTATGGATAG	ATATCCGGTT	GAGATTGATA	TT			

EL3 FIGURE 7 EL3 protein sequence
Molecular Weight 56801.10 Daltons
504 Amino Acids
66 Strongly Basic(+) Amino Acids (K,R)
48 Strongly Acidic(-) Amino Acids (D,E)
183 Hydrophobic Amino Acids (A,I,L,F,W,V)
127 Polar Amino Acids (N,C,Q,S,T,Y)
9.315 Isolectric Point
19.797 Charge at PH 7.0

LRQGRTKSKH LSKTICPTLR LSPMKNLKMV FFKILFISLM AGLAMKGSKI NVEDLQKFSL HHTQNNLQTI SLLLFLVVFV WILYMLTRPK PVYLVDFSCY LPPSHLKVSI QTLMGHARRA REAGMCWKNK ESDHLVDFQE KILERSGLGQ ETYIPEGLQC FPLQQGMGAS RKETEEVIFG ALDNLFRNTG VKPDDIGILV VNSSTFNPTP SLASMIVNKY KLRDNIKSLN LGGMGCSAGV IAVDVAKGLL QVHRNTYAIV VSTENITQNL YLGKNKSMLV TNCLFRVGGA AVLLSNRSRD RNRAKYELVH TVRIHTGSDD RSFECATQEE DEDGIIGVTL TKNLPMVAAR TLKINIATLG PLVLPLKEKL AFFITFVKKK YFKPELRNYT PDFKLAFEHF CIHAGGRALI DELEKNLKLS PLHVEASRMT LHRFGNTSSS SIWYELAYTE AKGRMKEGDR IWQIALGSGF KCNSSVWVAL RDVKPSANSP WEDCMDRYPV EIDI

EL3 FIGURE 8

EL4 cDNA	1650) bases				
ATGGGTAGAT	CCAACGAGCA	AGATCTGCTC	TCTACCGAGA	TCGTTAATCG	TGGGATCGAA	CCATCCGGTC
CTAACGCCGG	CTCACCAACG	TTCTCGGTTA	GGGTCAGGAG	ACGTTTGCCT	GATTTTCTTC	AGTCGGTGAA
CTTGAAGTAC	GTGAAACTTG	GTTACCACTA	CCTCATAAAC	CATGCGGTTT	ATTTGGCGAC	CATACCGGTT
CTTGTGCTGG	TTTTTAGTGC	TGAGGTTGGG	AGTTTAAGCA	GAGAAGAGAT	TTGGAAGAAG	CTTTGGGACT
ATGATCTTGC	AACTGTTATC	GGATTCTTCG	GTGTCTTTGT	TTTAACCGCT	TGTGTCTACT	TCATGTCTCG
TCCTCGCTCT	GTTTATCTTA	TTGATTTCGC	TTGTTACAAG	CCCTCCGATG	AACACAAGGT	GACAAAAGAA
GAGTTCATAG	AACTAGCGAG	AAAATCAGGG	AAGTTCGACG	AAGAGACACT	CGGTTTCAAG	AAGAGGATCT
TACAAGCCTC	AGGCATAGGC	GACGAGACAT	ACGTCCCAAG	ATCCATCTCT	TCATCAGAAA	ACATAACAAC
GATGAAAGAA	GGTCGTGAAG	AAGCCTCTAC	AGTGATCTTT	GGAGCACTAG	ACGAACTCTT	CGAGAAGACA
CGTGTAAAAC	CTAAAGACGT	TGGTGTCCTT	GTGGTTAACT	GTAGCATTTT	CAACCCGACA	CCGTCGTTGT
CCGCAATGGT	GATAAACCAT	TACAAGATGA	GAGGGAACAT	ACTTAGTTAC	AACCTTGGAG	GGATGGGATG
TTCGGCTGGA	ATCATAGCTA	TTGATCTTGC	TCGTGACATG	CTTCAGTCTA	ACCCTAATAG	TTATGCTGTT
GTTGTGAGTA	CTGAGATGGT	TGGGTATAAT	TGGTACGTGG	GAAGTGACAA	GTCAATGGTT	ATACCTAATT
GTTTCTTTAG	GATGGGTTGT	TCTGCCGTTA	TGCTCTCTAA	CCGTCGTCGT	GACTTTCGCC	ATGCTAAGTA
CCGTCTCGAG	CACATTGTCC	GAACTCATAA	GGCTGCTGAC	GACCGTAGCT	TCAGGAGTGT	GTACCAGGAA
GAAGATGAAC	AAGGATTCAA	GGGGTTGAAG	ATAAGTAGAG	ACTTAATGGA	AGTTGGAGGT	GAAGCTCTCA
AGACAAACAT	CACTACCTTA	GGTCCTCTTG	TCCTACCTTT	CTCCGAGCAG	CTTCTCTTCT	TTGCTGCTTT
GGTCCGCCGA	ACATTCTCAC	CTGCTGCCAA	AACGTCCACA	ACCACTTCCT	TCTCTACTTC	CGCCACCGCA
AAAACCAATG	GAATCAAGTC	TTCCTCTTCC	GATCTGTCCA	AGCCATACAT	CCCGGACTAC	AAGCTCGCCT
TCGAGCATTT	TTGCTTCCAC	GCGGCAAGCA	AAGTAGTGCT	TGAAGAGCTT	CAAAAGAATC	TAGGCTTGAG
TGAAGAGAAT	ATGGAGGCTT	CTAGGATGAC	ACTTCACAGG	TTTGGAAACA	CTTCTAGCAG	TGGAATCTGG
TATGAGTTGG	CTTACATGGA	GGCCAAGGAA	AGTGTTCGTA	GAGGCGATAG	GGTTTGGCAG	ATCGCTTTCG
GTTCTGGTTT	TAAGTGTAAC	AGTGTGGTGT	GGAAGGCAAT	GAGGAAGGTG	AAGAAGCCAA	CCAGGAACAA
TCCTTCCCTC	CATTCCATCA	ACCGTTACCC	TGTGCCTCTC			

EL4 FIGURE 9

EL4 protein sequence
Molecular Weight 61953.80 Daltons
550 Amino Acids
71 Strongly Basic(+) Amino Acids (K,R)
58 Strongly Acidic(-) Amino Acids (D,E)
191 Hydrophobic Amino Acids (A,I,L,F,W,V)
147 Polar Amino Acids (N,C,Q,S,T,Y)
9.036 Isolectric Point
14.349 Charge at PH 7.0

MGRSNEQDLL STEIVNRGIE PSGPNAGSPT FSVRVRRRLP DFLQSVNLKY VKLGYHYLIN HAVYLATIPV LVLVFSAEVG SLSREEIWKK LWDYDLATVI GFFGVFVLTA CVYFMSRPRS VYLIDFACYK PSDEHKVTKE EFIELARKSG KFDEETLGFK KRILQASGIG DETYVPRSIS SSENITTMKE GREEASTVIF GALDELFEKT RVKPKDVGVL VVNCSIFNPT PSLSAMVINH YKMRGNILSY NLGGMGCSAG IIAIDLARDM LQSNPNSYAV VVSTEMVGYN WYVGSDKSMV IPNCFFRMGC SAVMLSNRRR DFRHAKYRLE HIVRTHKAAD DRSFRSVYQE EDEQGFKGLK ISRDLMEVGG EALKTNITTL GPLVLPFSEQ LLFFAALVRR TFSPAAKTST TTSFSTSATA KTNGIKSSSS DLSKPYIPDY KLAFEHFCFH AASKVVLEEL QKNLGLSEEN MEASRMTLHR FGNTSSSGIW YELAYMEAKE SVRRGDRVWQ IAFGSGFKCN SVVWKAMRKV KKPTRNNPWV DCINRYPVPL

EL4 FIGURE 10

EL5 cDNA	1611	. bases				
TCGAGCTACG	TCAGGGCTTT	TATATGCACA	AATTCTCATA	AAGTTTTCAA	TTTTATTCCA	TTTTTCTCGG
AAGCCATGGA	AGCTGCTAAT	GAGCCTGTTA	ATGGCGGATC	CGTACAGATC	CGAACAGAGA	ACAACGAAAG
ACGAAAGCTT	CCTAATTTCT	TACAAAGCGT	CAACATGAAA	TACGTCAAGC	TAGGTTATCA	TTACCTCATT
ACTCATCTCT	TCAAGCTCTG	TTTGGTTCCA	TTAATGGCGG	TTTTAGTCAC	AGAGATCTCT	CGATTAACAA
CAGACGATCT	TTACCAGATT	TGGCTTCATC	TCCAATACAA	TCTCGTTGCT	TTCATCTTTC	TCTCTGCTTT
AGCTATCTTT	GGCTCCACCG	TTTACATCAT	GAGTCGTCCC	AGATCTGTTT	ATCTCGTTGA	TTACTCTTGT
TATCTTCCTC	CGGAGAGTCT	TCAGGTTAAG	TATCAGAAGT	TTATGGATCA	TTCTAAGTTG	ATTGAAGATT
TCAATGAGTC	ATCTTTAGAG	TTTCAGAGGA	AGATTCTTGA	ACGTTCTGGT	TTAGGAGAAG	AGACTTATCT
CCCTGAAGCT	TTACATTGTA	TCCCTCCGAG	GCCTACGATG	ATGGCGGCTC	GTGAGGAATC	TGAGCAGGTA
ATGTTTGGTG	CTCTTGATAA	GCTTTTCGAG	AATACCAAGA	TTAACCCTAG	GGATATTGGT	GTGTTGGTTG
TGAATTGTAG	CTTGTTTAAT	CCTACACCTT	CGTTGTCAGC	TATGATTGTT	AACAAGTATA	AGCTTAGAGG
GAATGTTAAG	AGTTTTAACC	TTGGTGGAAT	GGGGTGTAGT	GCTGGTGTTA	TCTCTATCGA	TTTAGCTAAA
GATATGTTGC	AAGTTCATAG	GAATACTTAT	GCTGTTGTGG	TTAGTACTGA	GAACATTACT	CAGAATTGGT
ATTTTGGGAA	TAAGAAGGCT	ATGTTGATTC	CGAATTGTTT	GTTTCGTGTT	GGTGGTTCGG	CGATTTTGTT
GTCGAACAAG	GGGAAAGATC	GTAGACGGTC	TAAGTATAAG	CTTGTTCATA	CCGTTAGGAC	TCATAAAGGA
GCTGTTGAGA	AGGCTTTCAA	CTGTGTTTAC	CAAGAGCAAG	ATGATAATGG	GAAGACCGGG	GTTTCGTTGT
CGAAAGATCT	TATGGCTATA	GCTGGGGAAG	CTCTTAAGGC	GAATATCACT	ACTTTAGGTC	CTTTGGTTCT
TCCTATAAGT	GAGCAGATTC	TGTTTTTCAT	GACTTTGGTT	ACGAAGAAAC	TGTTTAACTC	GAAGCTGAAG
CCGTATATTC	CGGATTTCAA	GCTTGCGTTT	GATCATTTCT	GTATCCATGC	TGGTGGTAGA	GCTGTGATTG
ATGAGCTTGA	GAAGAATCTG	CAGCTTTCGC	AGACTCATGT.	CGAGGCATCC	AGAATGACAC	TGCACAGATT
TGGAAACACT	TCTTCGAGCT	CGATTTGGTA	TGAACTGGCT	TACATAGAGG	CTAAAGGTAG	GATGAAGAAA
GGAAACCGGG	TTTGGCAGAT	TGCTTTTGGA	AGTGGGTTTA	AGTGTAACAG	TGCAGTTTGG	GTGGCTCTAA
ACAATGTCAA	GCCTTCGGTT	AGTAGTCCGT	GGGAACACTG	CATCGACCGA	TATCCGGTTA	AGCTCGACTT
С						

EL5 FIGURE 11 EL5 protein sequence
Molecular Weight 60874.60 Daltons
537 Amino Acids
63 Strongly Basic(+) Amino Acids (K,R)
47 Strongly Acidic(-) Amino Acids (D,E)
198 Hydrophobic Amino Acids (A,I,L,F,W,V)
148 Polar Amino Acids (N,C,Q,S,T,Y)
9.107 Isolectric Point
17.930 Charge at PH 7.0

SSYVRAFICT NSHKVFNFIP FFSEAMEAAN EPVNGGSVQI RTENNERKL PNFLQSVNMK YVKLGYHYLI THLFKLCLVP LMAVLVTEIS RLTTDDLYQI WLHLQYNLVA FIFLSALAIF GSTVYIMSRP RSVYLVDYSC YLPPESLQVK YQKFMDHSKL IEDFNESSLE FQRKILERSG LGEETYLPEA LHCIPPRPTM MAAREESEQV MFGALDKLFE NTKINPRDIG VLVVNCSLFN PTPSLSAMIV NKYKLRGNVK SFNLGGMGCS AGVISIDLAK DMLQVHRNTY AVVVSTENIT QNWYFGNKKA MLIPNCLFRV GGSAILLSNK GKDRRSKYK LVHTVRTHKG AVEKAFNCVY QEQDDNGKTG VSLSKDLMAI AGEALKANIT TLGPLVLPIS EQILFFMTLV TKKLFNSKLK PYIPDFKLAF DHFCIHAGGR AVIDELEKNL QLSQTHVEAS RMTLHRFGNT SSSSIWYELA YIEAKGRMKK GNRVWQIAFG SGFKCNSAVW VALNNVKPSV SSPWEHCIDR YPVKLDF

EL5 FIGURE 12

1502 bases EL6 TCTCCGACGATGCCTCAGGCACCGATGCCAGAGTTCTCTAGCTCGGTGAAGCTCAAGTACGTGAAACTTGGTTACCAA TATTTGGTTAACCATTTCTTGAGTTTTCTTTTGATCCCGATCATGGCTATTGTCGCCGTTGAGCTTCTTCGGATGGGT TTCATCTCCACTGTTTACTTCATGTCCAAGCCACGCACCATCTACCTCGTTGACTATTCTTGTTACAAGCCACCTGTC ACGTGTCGTGTCCCCTTCGCAACTTTCATGGAACACTCTCGTTTGATCCTCAAGGACAAGCCTAAGAGCGTCGAGTTC CTTAAACCTAAAGACGTCGACATCCTTATCGTCAACTGCTCTCTTTTCTCTCCCACACCATCGCTCTCAGCTATGGTC ATCAACAAATATAAGCTTAGGAGTAATATCAAGAGCTTCAATCTTTCGGGGGATGGGCTGCAGCGCGGGCCTGATCTCA GTTGATCTAGCCCGCGACTTGCTCCAAGTTCATCCCAATTCAAATGCAATCATCGTCAGCACGGAGATCATAACGCCT AATTACTATCAAGGCAACGAGAGAGCCATGTTGTTACCCAATTGTCTCTCCGCATGGGTGCGGCAGCCATACACATG TCAAACCGCCGGTCTGACCGGTGGCGAGCCAAATACAAGCTTTCCCACCTCGTCCGGACACACCGTGGCGCTGACGAC AAGTCTTTCTACTGTGTCTACGAACAGGAAGACAAAGAAGACGCGTTGGCATCAACTTGTCCAAAGATCTCATGGCC ATCGCCGGTGAAGCCCTCAAGGCAAACATCACCACAATAGGTCCTTTGGTCCTACCGGCGTCAGAACAACTTCTCTTC CACTTTTGCATTCACGCAGGAGGCAGAGCGGTGATCGACGAGCTCCAAAAGAATCTACAACTATCAGGAGAACACGTT GAGGCCTCAAGAATGACACTACATCGTTTTGGTAACACGTCATCTTCATCGTTATGGTACGAGCTTAGCTACATCGAG TCTAAAGGGAGAATGAGGAGAGGCGATCGCGTTTGGCAAATCGCGTTTGGGAGTGGTTTCAAGTGTAACTCTGCCGTG CCCGAAGTTGTCAAACTCTA

> EL6 FIGURE 13

EL6 protein sequence
Molecular Weight 56687.90 Daltons
500 Amino Acids
59 Strongly Basic(+) Amino Acids (K,R)
46 Strongly Acidic(-) Amino Acids (D,E)
182 Hydrophobic Amino Acids (A,I,L,F,W,V)
127 Polar Amino Acids (N,C,Q,S,T,Y)
8.909 Isolectric Point
14.567 Charge at PH 7.0

SPTMPQAPMP EFSSVKLKY VKLGYQYLVN HFLSFLLIPI MAIVAVELLR MGPEEILNVW NSLQFDLVQV LCSSFFVIFI STVYFMSKPR TIYLVDYSCY KPPVTCRVPF ATFMEHSRLI LKDKPKSVEF QMRILERSGL HYIPPTPTMD AARSEAQMVI FEAMDDLFKK TGLKPKDVDI LIVNCSLFSP TPSLSAMVIN KYKLRSNIKS FNLSGMGCSA GLISVDLARD LLQVHPNSNA IIVSTEIITP NYYQGNERAM LLPNCLFRMG AAAIHMSNRR SDRWRAKYKL SHLVRTHRGA DDKSFYCVYE QEDKEGHVGI NLSKDLMAIA GEALKANITT IGPLVLPASE QLLFLTSLIG RKIFNPKWKP YIPDFKLAFE HFCIHAGGRA VIDELQKNLQ LSGEHVEASR MTLHRFGNTS SSSLWYELSY IESKGRMRRG DRVWQIAFGS GFKCNSAVWK CNRTIKTPKD GPWSDCIDRY PVFIPEVVKL

EL6 FIGURE 14 EL7 1548 bases

ATGGACGTGCCGGAGAATCACGACTCGGTGGTGATGGTGGTGATGGTTCTGTTGGAGTTCAGATCCGACAAACA CGGATGCTACCGGATTTTCTCCAGAGCGTGAATCTCAAGTATGTGAAATTAGGTTACCATTACTTAATCTCAAATCTC TTGACTCTCTGTTTATTCCCTCTCGCCGTTGTTATCTCCGTCGAAGCCTCTCAGATGAACCCAGATGATCTCAAACAG $\verb|CTCTGGATCCATCTACAATACAATCTGGTTAGTATCATCATCTGTTCAGCGATTCTAGTCTTCGGGTTAACGGTTTAT|\\$ GTTATGACCCGACCTAGACCCGTTTACTTGGTTGATTTCTCTTGTTATCTCCCACCTGATCATCTCAAAGCtCCTTAC GCTCGGTTCATGGAACATTCTAGACTCACCGGAGATTTCGATGACTCTGCTCTCGAGTTTCAACGCAAGATCCTTGAG CGTTCTGGTTTAGGGGAAGACACTTATGTCCCTGAAGCTATGCATTATGTTCCACCGAGAATTTCAATGGCTGCTGCT <u>AGAGAAGAAGCTGAACAAGTCATGTTTGGTGCTTTAGATAACCTTTTCGCTAACACTAATGTGAAACCAAAGGATATT</u> GGAATCCTTGTTGTGAATTGTAGTCTCTTTAATCCAACTCCTTCGTTATCTGCAATGATTGTGAACAAGTATAAGCTT AGAGGTAACATTAGAAGCTACAATCTAGGCGGTATGGGTTGCAGCGCGGGAGTTATCGCTGTGGATCTTGCTAAAGAC ATGTTGTTGGTACATAGGAACACTTATGCGGTTGTTGTTTCTACTGAGAACATTACTCAGAATTGGTATTTTGGTAAC AAGAAATCGATGTTĠATACCGAACTGCTTGTTTCGAGTTGGTGGCTCTGCGGTTTTGCTATCGAACAAGTCGAGGGAC AAGAGACGGTCTAAGTACAGGCTTGTACATGTAGTCAGGACTCACCGTGGAGCAGATGATAAAGCTTTCCGTTGTGTT TATCAAGAGCAGGATGATACAGGGAGAACCGGGGTTTCGTTGTCGAAAGATCTAATGGCGATTGCAGGGGAAACTCTC AAAACCAATATCACTACATTGGGTCCTCTTGTTCTACCGATAAGTGAGCAGATTCTCTTCTTTATGACTCTAGTTGTG AAGAAGCTCTTTAACGGTAAAGTGAAACCGTATATCCCGGATTTCAAACTTGCTTTCGAGCATTTCTGTATCCATGCT GGTGGAAGAGCTGTGATCGATGAGTTAGAGAAGAATCTGCAGCTTTCACCAGTTCATGTCGAGGCTTCGAGGATGACT CTTCATCGATTTGGTAACACATCTTCGAGCTCCATTTGGTATGAATTGGCTTACATTGAAGCGAAGGGAAGGATGCGA AGAGGTAATCGTGTTTGGCAAATCGCGTTCGGAAGTGGATTTAAATGTAATAGCGCGATTTGGGAAGCATTAAGGCAT GTGAAACCTTCGAACAACAGTCCTTGGGAAGATTGTATTGACAAGTATCCGGTAACTTTAAGTTAT

> EL7 FIGURE 15

EL7 protein sequence
Molecular Weight 57848.80 Daltons
516 Amino Acids
59 Strongly Basic(+) Amino Acids (K,R)
48 Strongly Acidic(-) Amino Acids (D,E)
189 Hydrophobic Amino Acids (A,I,L,F,W,V)
131 Polar Amino Acids (N,C,Q,S,T,Y)
8.872 Isolectric Point
12.792 Charge at PH 7.0

MDGAGESRLG GDGGGDGSVG VQIRQTRMLP DFLQSVNLKY VKLGYHYLIS NLLTLCLFPL AVVISVEASQ MNPDDLKQLW IHLQYNLVSI IICSAILVFG LTVYVMTRPR PVYLVDFSCY LPPDHLKAPY ARFMEHSRLT GDFDDSALEF QRKILERSGL GEDTYVPEAM HYVPPRISMA AAREEAEQVM FGALDNLFAN TNVKPKDIGI LVVNCSLFNP TPSLSAMIVN KYKLRGNIRS YNLGGMGCSA GVIAVDLAKD MLLVHRNTYA VVVSTENITQ NWYFGNKKSM LIPNCLFRVG GSAVLLSNKS RDKRRSKYRL VHVVRTHRGA DDKAFRCVYQ EQDDTGRTGV SLSKDLMAIA GETLKTNITT LGPLVLPISE QILFFMTLVV KKLFNGKVKP YIPDFKLAFE HFCIHAGGRA VIDELEKNLQ LSPVHVEASR MTLHRFGNTS SSSIWYELAY IEAKGRMRRG NRVWQIAFGS GFKCNSAIWE ALRHVKPSNN SPWEDCIDKY PVTLSY

EL7 FIGURE 16